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ABSTRACT

A study delineated patterns of degree study and subsequent career development of master's degree recipients in education from the University of Michigan. Preliminary answers were sought on: (1) students' decisions to pursue a master's degree in education; (2) work and study patterns students followed since receiving the master's degree; (3) career patterns students have pursued since receiving the master's degree; (4) students' perceptions of the impact of the master's degree on their career progress; and (5) differences in patterns of study, career progress, reasons for pursuing the degree, or extent of perceived degree impact when graduates are grouped by sex, decade of graduation, or pursuit of career inside or outside of education. Survey respondents (N=1,669 students) are described in detail. After reporting demographics and characteristics of the sample, results obtained from the study participants are reported in part I. In part II, participants responding to the survey are compared by gender. In part III, comparisons are made of respondents by decade of graduation, and in part IV by type of career (education or non-education) pursued subsequent to the master's degree. (JD)

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Recipients of Masters Degrees in Education at the University of Michigan

A Career Follow-up Study

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Recipients of Masters Degrees in Education

at the University of Michigan: A Career Follow-up Study

During spring 1982 researchers at the University of Michigan School of Education conducted a survey of graduates who had obtained master's degrees in 1969, 1970 or in 1976 through 1981. The purpose of the study was to learn more about patterns of degree study and subsequent career development of master's degree recipients in education.

Specifically the survey sought preliminary answers to such questions as:

1. Why did students decide to pursue a master's degree in education?

2. What patterns of work and study did students follow during their master's program?

3. What types of career patterns have students pursued since receiving the master's degree?

4. What perceptions have students of the impact of the master's degree on their career progress?

5. Are there differences in patterns of study, career progress, reasons for pursuing the degree or extent of perceived degree impact when graduates are grouped by: a) sex, b) decade of graduation; or c) pursuit of careers inside or outside of education?

In this summary report of results, we describe the survey respondents in some detail. After reporting demographic characteristics of the sample, we report other results from the entire set of respondents in Part I. Thereafter, in Part II, we compare respondents to the survey by gender, in

Part III by decade of graduation (late 1960s or late 1970s) and in Part IV by type of career pursued subsequent to the master's degree (education or non-education).

The Survey Sample

The population for the survey included all those students who received master's degrees in education in 1969 or 1970 and from 1976 through 1981 inclusive (N=3524). The last two years of the sixties decade remained a period of high demand for individuals seeking educational careers. However, by 1976 declining opportunities were well publicized. Although students enrolled in education programs were still completing the programs they had begun, new enrollments in schools of education had declined rapidly. Collecting data from the two time periods mentioned allowed us to query respondents from both the "high" period and the "low" period in recent education enrollments.

This report is based on 1669 completed surveys received in time for analysis or 47.4% of the population surveyed. A substantial number of surveys, particularly from graduate students residing in foreign countries, were returned from six months to a year later and could not be included in the study results.

Table 1 describes the sample of master's graduates by year of graduation. While no other specific information is available to assess the representativeness of the response, the distribution by year of graduation and sex does correctly reflect the pattern of master's degrees granted at this university. Table 2 shows the distribution of respondents by sex. It should be noted that the percentage of women master's graduates at this university was higher than was the case nationally. National figures show that the

percentage of master's degrees in education granted to women was about 50% in 1969-70 and, although increasing, women's share had not quite reached 75% in 1981-82.

Table 1. Distribution of sample of master's graduates responding by year of graduation.

	N of Sample	Percent of Sample
Late Sixties		
1969	223	13.4
1970	232	14.0
Late Seventies		
1976	249	15.0
1977	214	12.9
1978	196	11.8
1979	192	11.6
1980	162	9.8
1981	190	11.5
	1658	100.0
Missing	11	

Table 2. Sex of master's degree respondents.

	N	% of responses
Female	1234	74.5
Male	403	24.3
	1637	98.8
Missing	32	

As is typical of master's graduates in education, even at a research oriented university, most of the graduates (72%) remained in Michigan after completing their degrees. A distribution of current residence, as identified by zip codes of respondents, is given in Table 3. We do not know the extent to which these individuals were Michigan residents before enrollment but general knowledge leads us to believe most of them were.

Table 3. State of current residence determined from zip codes of survey respondents.

	N		
Michigan	1192	Iowa	5
California	49	Oregon	4
New York	34	Hawaii	4
Texas	28	New Mexico	4
Illinois	27	Kansas	4
Ohio	22	Tennessee	4
Massachusetts	20	N. Carolina	4
Florida	20	S. Carolina	4
Pennsylvania	20	Connecticut	4
Wisconsin	19	West Virginia	3
Colorado	19	New Hampshire	2
Virginia	17	Delaware	2
Maryland	16	Alabama	2
Washington	13	S. Dakota	2
Indiana	13	Montana	2
New Jersey	11	Louisiana	2
Arizona	10	Nevada	1
Missouri	7	Utah	1
Kentucky	7	Idaho	1
Georgia	7	Wyoming	1
Minnesota	6	Oklahoma	1
Maine	5	Nebraska	1
District of Columbia	5	Mississippi	1
		Vermont	1
		Rhode Island	1
		Outside U.S.	25
		Total Known	1653

Table 4 gives the self-reported age of respondents at the time they received their master's degrees. The majority of students received the degree before the age of 30.

Table 4. Age of graduates at receipt of master's degree.

	N	% of responses
Less than 30 years	1019	61.9
31 to 40 years	394	23.9
41 to 50 years	185	11.2
51 or more years	49	3.0
	1647	100.0
Missing	22	

Part I

Survey Results

Purposes of Masters Study

Graduates were asked to rate the importance to them of several potential reasons for their decision to enter master's study. The percentage distribution of these responses in given in Table I-1 and the means and standard deviations from the 5-point interval-appearing scale are shown in Table I-2. In response to an item asking them to specify and rate reasons for study other than those given, 91% of the respondents checked "not applicable, This indicates that the reasons supplied in the survey do constitute the primary reasons for pursing master's study.

The two most important reasons for pursuing a master's degree were to improve professional skills or knowledge and to obtain personal satisfaction. Least important as reasons were to apply toward a degree credits already earned and to obtain an advanced degree in order to maintain one's job or certificate. Since most of the degree recipients were under 30 years of age when the master's degree was completed, and applying credits already earned was not an applicable reason for 55% of the graduates, we assume that most students pursued the degree as an initial postgraduate study. It should be noted that work beyond the bachelor's degree is required to maintain teaching certification in Michigan but continuing certificates are granted by the state on the basis of 18 or 30 credits of a planned program of study; a master's degree is not essential.

Table I-1 Reasons for pursing master's degree study.

		Extremely important	Very important	Somewhat important	Not important	Not applicable	Missing
Improve professional skills and knowledge	N	894	520	133	14	77	31
	%	54.6	31.7	8.1	.9	4.7	
Enhance opportunities for advancement in position	N	617	343	285	131	271	22
	%	37.5	20.8	17.3	8.0	16.5	
Move into a new professional field	N	408	223	257	229	533	19
	%	24.7	13.5	15.6	13.9	32.3	
Apply credits already earned to a degree	N	136	165	200	240	906	22
	%	8.3	10.0	12.1	14.6	55.0	
Earn a higher salary at my job	N	463	320	371	148	344	23
	%	28.1	19.4	22.5	9.0	20.9	
An advanced degree was required to maintain my position or certificate	N	267	147	181	214	838	22
	%	16.2	8.9	11.0	13.0	50.9	
Personal satsifaction	N	685	546	247	37	134	20
	%	41.5	33.1	15.0	2.2	8.1	

Table I-2 Means, standard deviations and rank order of reasons for master's degree study.

	Mean	SD	Rank Order
Improve professional skills and knowledge	1.69	.99	1
Enhance opportunities for advancement in position	2.45	1.46	3
Move into a new professional field	3.16	1.59	5
Apply credits already earned to a degree	3.98	1.35	7
Earn a higher salary at my job	2.75	1.48	4
An advanced degree was required to maintain my position or certificate	3.73	1.54	6
Personal satisfaction	2.02	1.38	2

Note: 1=extremely important; 4=not at all important; 5=does not apply

Reasons cited by the master's graduates for pursuing the degree were not independent as shown by the correlations in Table I-3. Personal satisfaction, opportunities for advancement in the current position, improvement of professional skills, applying credits already earned to a degree, and earning a higher salary appear to be related reasons. A moderate negative correlation between moving to a new professional field and earning a higher salary may indicate that graduates desiring to change careers anticipate an initial period of low salary.

Table I-3 Correlations among reasons for masters study. N=1633[a]

Reasons	Reasons 1	2	3	4	5	6
1. Improve professional skills and knowledge	--					
2. Enhance opportunities for advancement in position.	31*	--				
3. Move into a new professional field.	07*	03	--			
4. Apply credits already earned to a degree	05*	09*	-02	--		
5. Earn a higher salary at my job	11*	35*	-16*	31*	--	
6. An advanced degree was required to maintain my job	04	17*	-06*	17*	23*	--
7. Personal satisfaction	39*	20*	09*	10*	15*	-02

[a]Sample reduced by listwise deletion of respondents with missing data.

* $p < .05$

Study Patterns

Table I-4 gives the degree specializations within education that students pursued. The percent distribution across these areas approximates the pattern of degrees actually granted during the period studied. While these specializations may be seen as a reflection of student interest and career intent, they also reflect faculty availability and varying admissions policies among programs during the time period. Finally, enrollment in some specialties, for example, special education, was enhanced by availability of external training funds.

Table I-4. Area of specialization of master's graduates.

Program	Number	Percent
Educational Administration	118	7.1
Adult Education	48	2.9
Curriculum and Instruction	519	31.2
Early Childhood Education	54	3.2
Education and Community Development	26	1.6
Educational Psychology	89	5.3
Guidance and Counseling	326	19.6
Higher Education	33	2.0
Occupational Education	174	10.5
Physical Education	87	5.2
Social Foundations of Education	16	1.0
Special Education	137	8.2
Other	38	2.3
	1665	100.1
Missing	4	

Students pursued varied patterns of employment and study during their master's study. Because the school also enrolled a large number of doctoral students during this period, a very limited number of university-sponsored graduate assistantships were open to masters students making it necessary for most to have their own resources. The patterns of work and study reported by graduates are shown in Table I-5. Over half of the students pursued their study part time while continuing with regular employment.

Table I-5. Patterns of employment and financial support during coursework.

	N	Percent of sample
Full time student/no employment	243	14.8
Full time student/graduate assistantship	96	5.8
Full time student with part time work other than graduate assistant	325	19.8
Part time student with no employment	57	3.5
Part time student with graduate assistantship*	13	.8
Part time student with employment other than graduate assistantship	911	55.4
	1645	100.1
Missing	24	

*technically not permitted by university

Graduates who reported a combination of work and study during the master's degree (as opposed to full time study) were asked to rate the importance of several possible reasons for pursuing their particular full or part time employment pattern. The 303 graduates who indicated they held no position at any time during study are excluded from the percentage distributions shown in Table I-6. Among those who reported that they combined work and study, the most important reason was that work was necessary for family or personal support. Slightly less importantly, students worked to pay educational expenses. For 37.4% of the respondents, work experience was considered to be of very strong professional value.

Table I-6. Importance of reasons for pursuing pattern of work and study.

		Extremely Important	Very Important	Fairly Important	Slightly Important	Not Important
Work was necessary to support self and/or family	N	847	214	104	59	142
	%	62.0	15.7	7.6	4.3	10.4
Work necessary to pay educational expenses	N	600	285	165	113	202
	%	44.0	20.9	12.1	8.3	14.8
Work provided professional experience useful in career	N	511	340	189	79	249
	%	37.4	24.9	13.8	5.8	18.2
Other reasons	N	67	40	4	4	1251
	%	4.9	2.9	0.3	0.3	91.0
No work during masters study	N					303

Graduates were asked to report the title and duration of the position they held during master's degree study and the organization in which the position was held. This information was supplied by 1170 respondents. For at least 303 respondents the question was not applicable. Still, 186 additional individuals did not respond and it appears the question regarding job duration was ambiguous, particularly to those respondents who had continued in their regular employment. Consequently, we will report in a later section a less ambiguous distribution of the number of years graduates remained in the jobs they held before and after the master's degree. We have, however, reported in Table I-7 the types of organizations in which students reported employment during master's study. Note that 19.5% reported that these organizations were

in higher education. To some extent, this reflects the reporting of graduate assistantships (see Table I-9 for a comparison of regular employment patterns).

Table I-7. Organizational sectors in which graduates held positions during graduate study.

	N	% of responses
Elementary/secondary	737	63.0
Higher education	228	19.5
Community or service organization	34	2.9
Government agency	46	3.9
Business or industry	49	4.2
Other	76	6.5
	1170	100.0
No position during study	339	
Missing	186	

Two hundred eighty of the graduates said they had held an additional second job at some time during masters study. This indicates that there was some shifting in work patterns as study progressed. Many, however, appeared to have held the original job throughout masters study.

Careers Before and After the Master's Degree

In response to a question about their work before beginning the masters degree, 1277 of the graduates reported that they were working full time, 146 were working part time, 200 were not working and 46 did not answer. Several of these 46 apparently did work, however, since the figures in Table I-8 indicate that 1438 identified a work setting prior to the degree.

At the time of the survey, 1291 were working full time, 183 were working part time, and 195 did not answer. Again, related data indicate that some of those not answering were, perhaps, working.

Table I-8 summarizes the settings in which master's graduates worked before and after receiving the degree and Table I-9 describes the job titles reported by graduates before and after the degree.

The majority of graduates worked in elementary/secondary education settings both before and after the master's degree. Although the job title of classroom teacher predominated at both times, master's recipients clearly moved into other more specialized roles in the school setting after the degree. The variety of posts held was substantial. Since only 8.7% of the graduates reported student status prior to the master's degree, we may speculate that few individuals had pursued a master's degree directly after undergraduate work.

Table I-8. Types of settings in which masters degree recipients worked.

	Before Degree N	%	After Degree N	%
Elementary/Secondary	987	(68.6)	842	(56.9)
Higher Education	138	(9.6)	205	(13.8)
Community Service	54	(3.8)	76	(5.1)
Government	67	(4.7)	88	(5.9)
Business	82	(5.7)	129	(8.7)
Other	110	(7.6)	141	(9.5)
	1438		1481	
Missing (unemployed, homemaker, retired, missing)	231		188	

Table I-9. Jobs held by masters degree recipients before and after study.

Position	Before degree (in percent)	After degree (in percent)
HIGHEST LEVEL		
001 President/chancellor of college	0.0	0.1
002 Vice president/provost/dean of college	0.1	0.2
010 Superintendent of schools	0.0	0.1
011 Asst/assoc superintendent of schools	0.0	0.1
022 Executive officer - business/agency	0.8	1.8
HIGH LEVEL		
003 Director of unit - college	0.2	1.1
004 Asst/assoc adminis of unit-college	0.1	0.4
005 Prof, assoc prof, assist professor	0.3	1.5
012 District supervisor/director - school	1.2	1.9
013 Principal of School	0.4	1.3
023 Manager - business or agency	2.2	5.0
029 Research - non-college setting	0.1	0.1
039 Education director - non-college setting	0.6	0.5
MODEST LEVEL		
020 Middle administrator - college	0.8	1.0
019 Asst to administrative unit head - college	0.2	0.4
006 Faculty rank below assist professor	2.8	4.2
007 Psychologist/counselor/admissions	0.5	1.0
014 Class principal/asst or assoc principal	0.1	0.6
015 Teacher - school	54.4	38.9
016 School consultant or specialist	0.8	2.6
017 Student services - school	0.4	3.4
018 Librarian - school	0.6	0.5
025 Consultant - community agency/business	0.1	0.9
026 Specialist - community agency/business	0.7	2.1
027 Private practitioner/counseling	0.0	0.6
028 Private consultant	2.5	3.0
030 Employee in higher education gov't agency	0.0	1.8
LOW LEVEL		
008 Graduate or research assistant	0.2	0.6
009 Other higher education professional	0.9	1.2
038 Media in non-school setting	0.1	0.4
040 Health practice - non-school	3.5	4.8
021 Substitute teacher	3.1	1.5
031 Clergy	0.6	0.5
034 Military	0.3	0.0

LOWEST LEVEL		
024 First line worker - non-education	2.8	4.1
032 Secretary	1.8	0.4
033 Student	8.7	1.0
035 Homemaker	1.7	4.7
036 Unemployed	2.5	3.9
041 Retired	0.0	1.2
042 Other non-education	3.2	2.0
043 Intern	0.1	0.1
045 Volunteer work (education related)	0.1	0.4
046 Hourly worker	0.6	0.1

Note: The classification of job levels from highest to lowest is explained in reference to Table I-12.

In order to provide an idea of the job transitions involved with completion of degree work, graduates were asked to report the number of years they held the job in which they were employed immediately before master's study and the number of years they had been employed in their current job. Tables I-10 and I-11 summarize this information. Since many individuals apparently did not change positions at all and some changed jobs for reasons unrelated to the master's degree, this question may have been interpreted differently by different respondents. Thus, the percent of the respondents reporting each number of years has been rounded to the nearest percent to approximate the accuracy of the data. Comparisons of the same data for different groups are more useful as will be apparent in Parts II, III and IV of this report.

Table I-10. Length of time graduates held the job in which they were employed immediately before the master's degree.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Nearest Percent of Sample	34	24	13	8	6	4	3	2	1	1	2	1	3

Missing = 320
Range: 1-32 years; Mean=3.3 years; SD=3.5 years

Table I-11. Number of years master's recipients have held their current jobs.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Nearest Percent of Sample	23	11	12	6	8	4	4	5	5	5	4	3	12

Missing = 216
Range: 1-40 years; Mean=5.9 years; SD=5.2 years

We calculated an index of occupational change by rating each job title shown in Table I-9 along a five-point continuum depending upon its prestige, level of responsibility, and relation to typical employment goals of education students. Each master's student was assigned occupational indices appropriate to the positions held before and after masters study. Table I-12 provides the distribution of occupational levels before the degree and at the time of the survey as well as the mean change in this index.

In terms of progress along what might be thought of as a typical career ladder, master's students have made relatively little upward movement as a result of the degree. In considering the group as a whole, this lack of movement may be attributed, in part, to the number of women who became

primarily homemakers after the master's degree. When we recalculated the change in index after omitting those who classified themselves as homemakers, volunteer workers or retired either before or after the degree, the number of individuals in the "lowest" occupational index level was reduced from 347 to 319 before the degree and from 297 to 194 after the degree. On this basis the mean occupational index change rises from .16 to .26 while the standard deviation remains the same. Another possible explanation is inappropriateness of our index for those who pursued careers in non-educational settings. These concerns about the index will be illustrated more clearly in Parts II and IV of this report which compare respondents by sex and type of career. As previously mentioned, notations in Table I-9 show the occupational titles that were classified from lowest to highest on this occupational index.

Table I-12. Occupational level indices before and after degree study.

		Lowest	Low	Modest	High	Highest
Level before degree	N	347	140	1037	82	15
(Missing=52)	%	21.4	8.6	64.0	5.1	.9
Level at time of survey	N	297	132	985	195	38
(Missing=22)	%	18.0	8.0	59.8	11.8	2.3

Difference in levels: Range = -4 to +4 Mean = .16 S.D. 1.2

Note: Homemakers, retired individuals and unemployed persons are included.

Graduates' perceptions of career impact

Graduates were asked to rate various aspects of career development according to whether they felt receipt of the master's degree had resulted in

change. A seven-point scale from "considerably less" to "considerably increased" was used. Results are shown in Tables I-13 and I-I4.

Graduates viewed the acquisition of professional skills and professional knowledge as the most important impacts of receiving the master's degree. On the average, they rated these as "somewhat increased" as a result of study. Job security and the attainment of administrative or supervisory responsibility were viewed as the career impacts of least importance and were rated, on the average, as only slightly increased. Among the small percentage who viewed receipt of the master's degree as detrimental to their careers, less salary was cited by 11.0% and less job security by 9.4%. From comments made by the respondents, we surmise that such responses were made primarily by those individuals who left a position to study for a master's degree and, with a changing job market, were unable to find a new job equivalent to that from which they had resigned.

A large number of individuals (44.1%) did not perceive that their job status was changed by obtaining the master's degree. Possibly this is because the master's is viewed in many aspects of education as a general expectation within the first few years of employment.

Table I-13. Self-rating of career impact of master's degree.*

		Considerably Less			No Change			Considerably Increased
		1	2	3	4	5	6	7
Salary (Miss=91)	N	47	55	28	117	219	427	295
	%	4.0	4.6	2.4	9.8	18.4	35.9	24.8
Status or Rank	N	14	20	17	522	183	246	181
(Miss=96)	%	1.2	1.7	1.4	44.1	15.5	20.8	15.3
Professional Skills	N	11	15	11	89	169	491	391
(Miss=101)	%	0.9	1.3	0.9	7.6	14.3	41.7	33.3
Professional Knowledge	N	13	16	1 5	54	142	459	477
(Miss=103)	%	1.1	1.4	1.3	4.6	12.1	39.0	40.6
Job Security	N	45	29	37	574	145	207	143
(Missing=99)	%	3.8	2.5	3.1	48.6	12.3	17.5	12.1
Administrative or Supervisory Responsibility	N	28	21	13	620	129	145	213
(Missing=110)	%	2.4	1.8	1.2	53.0	11.0	12.4	18.2

*This question was posed only to graduates who held a full-time job both before and after the masters degree. The question was not answered by 390 respondents who presumably did not meet this specification. The missing data indicated for each item specifies additional individuals who did not answer the question.

Table I-14. Means, standard deviations and rank of ratings graduates gave to career impact.

	Mean	SD	Rank
Salary (Missing=91)*	5.41	1.56	3
Status or Rank (Missing=96)	4.95	1.29	4
Professional Skills (Missing=101)	5.91	1.13	2
Professional Knowledge (Missing=103)	6.05	1.15	1
Job Security (Missing=99)	4.64	1.41	6
Administrative or Supervisory Responsibility (Missing=110)	4.79	1.39	5

*This question was posed only to graduates who held a full time job both before and after the master's degree. The question was not answered by 390 respondents who presumably did not meet this specification. The missing data indicated for each item specifies additional individuals who did not answer the question. Response ranged from 1=considerably less to 7=considerably increased.

As shown in Table I-15, positive career impact of receiving the master's degree on one aspect of the career tended to be associated with positive impact on other aspects. All perceptions of career impact are moderately correlated. Interestingly, the correlation between increase in salary and increase in administrative responsibility was the least strong association identified.

Table I-15. Correlation of career impact perceptions.

	Impact 1	2	3	4	5
1. Salary	--				
2. Status or Rank	33	--			
3. Professional Skills	37	46	--		
4. Professional Knowledge	37	41	86	--	
5. Job Security	26	34	27	27	--
6. Administrative Responsibility	15	56	35	35	27

All correlations are significant; $p < .05$.

Additional Educational Activities after the Master's Degree

Graduates were asked if they had obtained any other degrees since earning their master's degree at the School of Education. Since the time elapsed since completion of the masters was a maximum of six years for the majority of respondents who had graduated between 1976 and 1981, it was not surprising to find that few had done so. Fourteen graduates reported receiving an additional B.A., 43 an additional masters degree, 33 a doctorate, 28 another professional degree and 88 some other degree.

Continuing Contact with the School of Education

About 57% of the graduates said they maintained no further contact with the School of Education after receiving their master's degree. Eighteen percent (308 individuals) reported a contact less frequently than once a year and none reported more contact than once a year. 400 individuals (24%) gave no answer.

Graduates were asked to name faculty members with whom they keep in contact occasionally. 132 different faculty members were named, some of whom

were not in education. Some faculty members were named frequently: 2 faculty members were named more than 20 times, 7 were named between 10 and 20 times and 20 were named 5 to 10 times.

Graduates also were not particularly anxious to increase their contacts with the School of Education. When asked if they "had been involved" or "were willing to be involved" in various activities, the percentages of the 1669 answering yes for each type of activity suggested is shown in Table I-16. The most frequent preference for involvement seemed to be for formal activities such as taking or teaching courses.

Table I-16. Graduates' preferences for continued involvement with School of Education activities.

	Have been involved (in percent of sample)	Willing to be involved
Take additional courses	14.6	20.0
Teach courses or workshops	5.8	19.7
Recruit graduate students	3.9	8.5
Placement of graduates	2.2	6.3
Alumni Club activities	5.4	9.8
Attending conferences	16.1	2.5

Part II.

Comparison of Masters Student by Gender

This section compares data from men and women recipients of master's degrees on the same variables presented for all graduates in Part I. As shown in Tables II-1 and II-2, women graduates predominated and tended to be slightly older when they received their degrees. The proportions of men and women responding were similar for the graduation years examined.

Table II-1. Distribution of male and female graduates by year of degree.

	Women % of sample	Men % of sample
Late Sixties		
1969	73.9	26.1
1970	78.3	21.7
Late Seventies		
1976	73.9	26.1
1977	74.4	25.6
1978	77.9	22.1
1979	71.4	28.6
1980	78.0	22.0
1981	76.2	23.8

$X^2=4.67$, df=7, p=.05

Table II-2. Age of students at receipt of masters degree.

	Women	Men
	(in percent)	
Less than 30 years	62.5	61.5
31 to 40 years	22.1	29.0
41 to 50 years	12.5	6.5
51 or more	2.9	3.0
Missing	14	6

X^2=15.66, df=3, p=.00

The patterns of specialization reported in Table II-3 appear quite traditional. Women more frequently studied in curriculum and instruction, early childhood education and special education while men more often pursued programs in educational administration, occupational education and physical education.

Table II-3. Area of specialization of master's students.

Program	Women	Men
	(in percent)	
Educational Administration	3.2	18.9
Adult Education	3.0	2.0
Curriculum and Instruction	35.1	18.7
Early Childhood Education	4.1	0.7
Education and Community Development	1.3	2.0
Educational Psychology	5.7	4.0
Guidance and Counseling	19.2	21.4
Higher Education	1.7	3.0
Occupational Education	8.8	16.2
Physical Education	4.5	7.7
Social Foundations of Education	0.9	1.2
Special Education	9.9	3.0
Other	2.7	1.2
	100.1	100.1

X^2=193.00, df=12, p=.00

Purposes of Master's Study

Based on a comparison of means for the two groups, men and women graduates ranked the reasons they pursued master's study in the same order of importance. The two genders differed significantly, however, in the degree of importance they attached to certain purposes. Men were significantly more interested in advancement opportunities than women. In rating their purposes women were more likely to emphasize requirements for maintenance of their current positions and the personal satisfaction of studying for the degree. The means, variances and Student's t tests between the genders are given in Table II-4. The differences indicated are also reflected in the table of correlations among the purposes which are given separately by gender in Table II-5. The correlations for men differed from those for women for

the association between importance of salary and professional skills, for the relationship between advancement opportunities in the current job and maintenance of the job, and for the association between earning a higher salary and personal satisfaction. While for women these relationships were significant, for men they were not.

Table II-4. Comparison of male and female graduates on reasons for pursuing master's study.

	Women		Men			
	X	Var	X	Var	t	df
Improve professional knowledge and skills	1.66	.97	1.77	1.00	-1.87	1605
Enhance opportunities for advancement in position	2.51	2.23	2.26	1.86	2.97*	1613
Move into a new professional field	2.19	2.58	3.04	2.33	1.72	1616
Apply credits already earned to a degree	3.98	1.92	3.99	1.52	.14	1614
Earn a higher salary at my job	2.76	2.19	2.74	2.21	.12	1613
An advanced degree was required to maintain my position or certificate	3.67	2.45	3.89	2.10	-2.44*	1614
Personal satisfaction	1.93	1.33	2.23	1.36	-4.43*	1616

Note: 1=extremely important; 4=not at all important; 5=does not apply.

*p < .05

Table II-5. Comparison of male and female graduates on correlations among reasons for masters study
N-1214 women; (N=388 men)

Reason	Reason 1	2	3	4	5	6	7
1. Improve professional skills and knowledge	--	32* (29)*	08* (07)	04 (05)	14* (02)	05 (-03)	40* (33)*
2. Enhance opportunities for advancement in position		--	02 (03)	09* (06)	36* (31)*	21* (05)	23* (13)*
3. Move into a new professional field			--	-04 (06)	-15* (-16)*	-05 (-07)	08* (10)*
4. Apply credits already earned toward a degree				--	32* (26)*	16* (21)*	10* (10)*
5. Earn a higher salary at my job					--	21* (29)*	20* (01)
6. An advanced degree was required to maintain my job.						--	-02 (-07)
7. Personal satisfaction							

*p < .05

Study Patterns

Patterns of work and study while pursuing the master's degree are shown separately for men and women in Table II-6. Women were more likely to be full-time students and less likely to be employed than men. As indicated in Table II-7, men more often cited the need to support themselves and their families as an important reason for the pattern of work and study they chose.

Table II-6. Patterns of employment and financial support during coursework.

	Women % of sample	Men % of sample
Full time student/no employment	15.4	11.9
Full time student/graduate assistantship	5.3	7.8
Full time student with employment other than graduate assistant	20.6	16.7
Part time student with no employment	4.3	0.8
Part time student with graduate assistantship*	0.7	1.0
Part time student with employment other than graduate assistantship	53.6	61.9
Missing	15	7

X^2=23.16, df=5, p=.00

*technically not permitted by the university

Table II-7. Importance of reasons for pursuing patterns of work and study.

	Women		Men			
	X	Var	X	Var	t	df
Work was necessary to support self and/or family	2.03	2.02	1.36	.77	8.3*	1344
Work necessary to pay educational expenses	2.34	2.18	2.15	2.00	2.07	1344
Work provided professional experience useful in career	2.42	2.22	2.43	2.17	.06	1347

*p < .05

1=extremely important; 4=not at all important; 5=not applicable

The distributions of the type of organization setting in which men and women held positions during graduate study (Table II-8) did not differ significantly for those who were employed. The percentage of women who did not report a position (379 or 30.7%) was only slightly greater than the number of men (107 or 26.6%). In addition, 16% of the women and 20% of the men reported having held a second position at some time during their graduate study.

Table II-8. Organizational sectors in which graduates held position during graduate study.

	Women	Men
	(in percent)	
Elementary/Secondary education	64.0	60.5
Higher education	19.5	19.6
Community or service organization	2.8	3.0
Government agency	3.3	5.7
Business or industry	3.7	5.1
Other	6.7	6.1
Missing	379	107

X^2=4.96, df=5, p=.42

Careers Before and After the Master's Degree

The sectors in which men and women worked before and after the masters degree differed significantly (Table II-9). Women more frequently worked in elementary/secondary education or community service agencies. Men also were employed in these settings but were more likely than women to work in government, business or higher education. Although the distributions remained different, the proportions of women in higher education after the degree more closely approximated that of men and the proportions of both genders working

in elementary/secondary education was reduced. A more detailed comparison of job titles reported by men and women before master's study is reported in Table II-10 and after study in Table II-11.

Table II-9. Settings in which graduates worked before and after masters degree.

	Before Degree		After Degree	
	Women	Men	Women	Men
	(in percent)		(in percent)	
Elementary/Secondary education	71.3	61.4	57.9	54.3
Higher Education	13.2	14.7	9.4	10.3
Community Service Agency	6.0	2.6	4.0	3.0
Government Agency	5.4	7.3	3.2	8.7
Business	7.9	11.0	4.6	8.2
Other	9.6	10.0	7.4	8.4
Missing	161	22	194	35
	X^2=29.39, df=5, p=.00		X^2=12.6, df=5, p=.03	

Table II-10. Positions held before masters study.

Position	Women (in percent)	Men
001 President/chancellor of college	0.0	0.0
002 Vice president/provost/dean of college	0.1	0.3
010 Superintendent of schools	0.0	0.0
011 Asst/assoc superintendent of schools	0.0	0.0
022 Executive officer - business/agency	0.5	1.8
003 Director of unit - college	0.0	1.0
004 Asst/assoc adminis of unit - college	0.1	0.0
005 Prof, assoc prof, assist professor	0.0	1.3
012 District supervisor/director - school	0.9	2.0
013 Principal of school	0.3	0.5
023 Manager - business or agency	1.8	3.5
029 Research - non-college setting	0.1	0.3
039 Education director - non-education setting	0.6	0.0
020 Middle administrator - college	0.8	1.0
019 Asst to administrative unit head - college	0.2	0.3
006 Faculty rank below assist professor	2.8	2.3
007 Psychologist/counselor/admissions	0.5	0.5
014 Class principal/asst or assoc principal	0.0	0.3
015 Teacher - school	54.8	52.7
016 School consultant or specialist	0.9	0.5
017 Student services - school	0.4	0.5
018 Librarian - school	0.5	0.5
025 Consultant - community agency/business	0.1	0.0
026 Specialist - community agency/business	0.8	0.8
027 Private practitioner/counseling	0.0	0.0
028 Private consultant	2.2	3.8
030 Employee in higher education govt agency	0.0	0.0
008 Graduate or research assistant	0.3	0.0
009 Other higher education professional	1.0	0.8
038 Media in non-school setting	0.1	0.0
040 Health practice - non-school	4.2	1.5
021 Substitute teacher	3.8	1.3
031 Clergy	0.2	1.8
034 Military	0.0	1.3
024 First line worker - non-education	2.1	4.3
032 Secretary	2.1	1.0
033 Student	9.4	7.3
035 Homemaker	2.2	0.3

036 Unemployed	2.5	3.9
041 Retired	0.0	1.2
042 Other non-education	3.2	2.0
043 Intern	0.1	0.1
044 Fellowship	0.0	0.1
045 Volunteer work (education related)	0.1	0.4
046 Hourly worker	0.0	1.0

Table II-11. Positions held after masters study.

Position	Women (in percent)	Men
001 President/chancellor of college	0.0	0.2
002 Vice president/provost/dean of college	0.2	0.5
010 Superintendent of schools	0.0	0.2
011 Asst/assoc superintendent of schools	0.0	0.5
022 Executive officer - business/agency	1.6	2.7
003 Director of unit - college	0.7	2.2
004 Asst/assoc adminis of unit - college	0.3	0.5
005 Prof, assoc prof, assist professor	1.4	2.0
012 District supervisor/director school	1.2	3.7
013 Principal of school	0.7	3.2
023 Manager - business or agency	4.5	6.9
029 Research - non-college setting	0.0	0.2
039 Education director - non-education setting	0.0	0.5
020 Middle administrator - college	1.0	1.0
019 Asst to administrative unit head - college	0.6	0.0
006 Faculty rank below assist professor	4.0	4.5
007 Psychologist/counselor/admissions	1.0	1.2
014 Class principal/asst or assoc principal	0.3	1.2
015 Teacher - school	39.6	36.7
016 School consultant or specialist	3.2	1.0
017 Student services - school	3.5	3.5
018 Librarian - school	0.5	0.7
025 Consultant - community agency/business	0.6	1.5
026 Specialist - community agency/business	2.3	1.5
027 Private practitioner/counseling	0.7	0.2
028 Private consultant	3.0	3.2
030 Employee in higher education govt agency	0.6	0.7
008 Graduate or research assistant	0.4	1.2
009 Other higher education professional	1.2	1.0
038 Media in non-school setting	0.3	0.5
040 Health practice - non-school	4.9	0.7
021 Substitute teacher	1.9	0.2
031 Clergy	0.2	1.7
034 Military	0.0	0.0
024 First line worker - non-education	3.6	5.5
032 Secretary	0.6	0.0
033 Student	0.5	2.2
035 Homemaker	6.3	0.2

036 Unemployed	4.5	2.0
041 Retired	1.1	1.5
042 Other non-education	2.1	2.0
043 Intern	0.2	0.0
044 Fellowship	0.1	0.0
045 Volunteer work (education related)	0.4	0.0
046 Hourly worker	0.0	0.5

Tables II-12 and II-13 show the number of years men and women graduates reported they held positions immediately before the master's degree and at the time of the survey. These distributions of years did not differ significantly, indicating that stability of employment for those who worked did not differ by gender. However, a higher percentage of women than men did not report holding a position at either of these times.

Table II-12. Length of time graduates held position in which they were employed immediately before the master's degee.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Women													
Nearest Percent	37	24	12	7	6	4	3	1	1	2	1	1	2
Missing=21%													
Men													
Nearest Percent	28	22	14	11	7	4	2	2	1	2	1	1	4
Missing=12%													

X^2=19.73, df=12, p=.07

Table II-13. Length of time current position has been held.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Women Nearest Percent Missing=15%	23	11	13	7	8	5	4	5	5	4	3	2	11
Men Nearest Percent Missing=6%	22	9	10	6	9	3	4	5	4	7	4	4	14

$x^2=18.68$, df=12, p=.10

Table II-14 gives the occupational level indices for both men and women before and after the master's degree and the mean change in occupational level index, a created variable we described in Part I. The distributions are significantly different for men and women. More women occupied the lowest position levels and fewer occupied the high and highest position levels both before and after master's study. All individuals who reported a position before and after the degree are included, thus the number of women who are homemakers tends to concentrate women in the lowest rank. Compensating for this, and previously mentioned, is the fact that our index may not correctly respect occupational level for non-education positions. Since men more often than women reported jobs in government and business, the distribution may incorrectly place more men in lower occupational levels as well. Recalculating after omitting homemakers, retired persons and volunteers reduces we find 20.1% of the working women and 19.8% of the working men in the lowest rank before the degree and 12.4% of each sex who are working in the lowest rank after the degree. The mean occupational change was .25 for women and .31 for men, an insignificant difference. Based on this comparison and

recognizing its limitations, men appear to have made slightly more career progress than women but the difference is not statistically significant.

Table II-14. Comparison of male and female graduates on occupational level indices before and after master's degree.

	Lowest	Low	Modest	High	Highest
			(in percent)		
Level Before Degree					
Women (Missing=40)	21.9	9.5	64.1	3.9	0.6
Men (Missing=8)	20.0	6.3	63.0	8.6	2.0
			x^2=23.93, df=4, p=.00		
Level After Degree					
Women (Missing=21)	19.3	8.9	60.8	9.3	1.7
Men (Missing=4)	13.9	5.5	57.1	19.4	4.2
			x^2=19.78, df=4, p=.00		
Difference in levels					
Women	Mean = .13; Variance = 1.46				
Men	Mean = .27; Variance = 1.47				
	t=-1.91 df=1571 p=.06				

Note: Homemakers and retired persons are included.

Graduates' Perceptions of Career Impact

Based on the means reported in Table II-15, men and women graduates assigned the same rank order to the impact of receiving the master's degree on various career aspects. The extent to which salary, status, administrative responsibility and job security were perceived as increased after the degree was about the same for both genders. Women, however, tended to feel that professional skills and professional knowledge had increased to a significantly greater extent than men. The patterns of correlations among the perceptions of career impact are similar for both genders as shown in

Table II-16 although men perceived a stronger relationship between the impacts of salary and supervisory responsibility.

Table II-15. Perceptions of degree impact on career.

	Women		Men			
	X	Var	X	Var	t	df
Salary	5.40	2.49	5.40	2.24	.01	1162
Status or rank	4.91	1.72	4.99	1.47	.94	1158
Professional Skill	5.95	1.30	5.76	1.28	2.53*	1153
Professional Knowledge	6.08	1.31	5.93	1.37	1.99*	1151
Job Security	4.65	1.99	4.56	1.92	.98	1155
Supervisory or Administrative Responsibility	4.72	1.92	4.89	1.86	-1.87	1145

Note: 1=considerably less to 7=considerably increased; 4=no change.

*p < .05: 318 women and 66 men had no basis for before and after comparison.

Table II-16. Correlations of career impact perceptions
N=808 women; (N=322 men)

Impact	Impact 1	2	3	4	5	6
1. Salary	--	34 (34)	40 (31)	41 (32)	28 (23)	12 (24)
2. Status or rank		--	48 (43)	43 (38)	34 (36)	56 (55)
3. Professional skill			--	89 (81)	26 (28)	35 (35)
4. Professional knowledge				--	27 (24)	35 (35)
5. Job security					--	29 (21)
6. Supervisor responsibility						

All correlations are significant at $p < .05$.

Additional Educational Activities after the Master's Degree

Although the numbers of individuals pursuing additional degrees after the master's degree was very small and the time span since the master's degree was short for most respondents, men have pursued additional degrees more frequently than women (see Table II-17).

Table II-17. Additional degrees obtained after the masters.

	Women	Men	X^2	p
	(in percent)			
Other B.A.	1.1	.3	2.32	.13
Other masters	2.0	4.2	5.86	.02
Education doctorate	.8	3.5	14.94	.00
Other doctorate	.4	.7	.72	.40
Professional degree	1.2	3.0	5.84	.02
Other degree	5.8	6.2	.10	.75

Continuing Contact with the School of Education

Although continued contact with the School of Education was minimal, men were significantly more likely to keep in contact than women (X^2=10.36, df=1, p=.00). Of the women 77.8% reported no contact and 22% contact less than once a year. For the men 68.5% reported no contact and 31.5 less than once a year.

Part III

Comparison of Master's Students by Decade of Degree

This section compares students who received master's degrees in the late 1960s (1969 and 1970) with a subsample of those received degrees in the late 1970s (1979 and 1980). For ease of reference we have termed the first two-year period Decade 1 (N=455) and the second period Decade 2 (N=354). As shown in Table III-2, the age of students at receipt of the degree did not differ significantly for the two decades. The sex ratio also remained similar across decades.

Table III-1. Distribution of graduates by decade of degree.

	Decade 1 1969-70	Decade 2 1979-80
Number of graduates	455	354
Percent of sample	56.2%	43.8%

Missing=11

Table III-2. Age of students at receipt of masters degree.

	Decade 1	Decade 2
	(in percent)	
Less than 30 years	64.6	60.7
31 to 40 years	21.4	26.8
41 to 50 years	11.1	10.3
51 or more	2.9	2.3
Missing	6	3

X^2=3.22, df=3, p=.06

Table III-3 gives the percent of students in each decade pursuing various specialization areas within education. The patterns are somewhat different. As previously mentioned, these differences reflect program availability, program admissions policies and job market factors as well as student interests. The increase in the proportion of students specializing in adult education and occupational education and decrease in the proportion studying in curriculum and instruction, guidance and counseling and educational administration in Decade 2 compared to Decade 1 reflects program expansion to accommodate the non-school job market as employment opportunities in the public school setting were declining.

Table III-3. Area of specialization of masters students.

Program	Decade 1 (in percent)	Decade 2
Educational Administration	9.0	5.4
Adult Education	0.9	3.7
Curriculum and Instruction	36.5	29.4
Early Childhood Education	2.9	2.0
Education and Community Development	0.2	4.0
Educational Psychology	6.6	5.4
Guidance and Counseling	23.7	17.8
Higher Education	1.5	2.5
Occupational Education	2.4	15.5
Physical Education	3.3	4.2
Social Foundations of Education	1.5	0.6
Special Education	8.6	7.1
Other	2.9	2.5
	X^2=79.22, df=12, p=.00	

Purposes of Master's Study

Judging from the mean ratings graduates gave to various purposes of master's study, as shown in Table III-4, these goals are rank ordered in the same way by respondents of both decades. In Decade 2, however, graduates more frequently rated as important the pursuit of a master's degree in order to enhance opportunities for advancement and to improve professional skills. The increased importance attributed to these purposes in Decade 2 may reflect job reassignments in schools due to declining enrollment and resources and, in part, the need to develop new credentials in preparation for such reassignment.

The correlation matrix among the ratings of study purposes (Table III-5) shows quite similar patterns for the two decades. For graduates of Decade 2, however, the relation between personal satisfaction and such a potentially imposed goal as obtaining an advanced degree to maintain one's current position is more negative. While for Decade 1 the relationship is positive

between personal satisfaction and the importance of applying credits toward a degree, as a reason for studying for the masters this relationship is non significant and negative for Decade 2.

Table III-4. Comparison of graduates by decade on purposes of master's study.

	Decade 1		Decade 2			
	X	Var	X	Var	t	df
Improve professional knowledge and skills	1.76	1.20	1.60	.84	2.27*	791
Enhance opportunities for advancement in position	2.54	2.33	2.27	1.85	2.59*	796
Move into a new professional field	3.26	2.61	3.08	2.50	1.53	797
Apply credits already earned to a degree	3.94	1.84	4.02	1.64	-.86	795
Earn a higher salary at my job	2.65	2.07	2.79	2.20	-1.34	795
An advanced degree was required to maintain my position or certificate	3.87	2.21	3.75	2.32	1.09	796
Personal satisfaction	2.09	1.52	1.94	1.17	1.75	797

Note: 1=extremely important; 4=not at all important; 5=does not apply.

*$p < .05$

Table III-5. Correlations among reasons for master's study.
N=425 Decade 1; (N=347 Decade 2)

	1	2	3	4	5	6	7
1. Improve professional skills and knowledge	--	34* (32)*	07 (12)*	09 (-00)	16* (10)*	06 (-01)	37* (43)*
2. Enhance opportunities for advancement in position		--	05 (-02)	11* (04)	38* (35)*	23* (14)*	20* (24)*
3. Move into a new professional field			--	-01 (00)	-16* (-18)*	11* (-02)	18* (09)*
4. Apply credits already earned toward a degree				--	28* (29)*	11* (24)*	18* (-06)
5. Earn a higher salary at my job					--	26* (20)*	22* (08)
6. An advanced degree was required to maintain my job.						--	-04 (-15)*
7. Personal satisfaction							

* $p < .05$

Patterns of Study

Patterns of master's level study and employment for graduates of the two decades are reported in Table III-6 and the reasons they provided for the particular pattern in Table III-7. There appear to have been more full time master's students without employment in Decade 1. Graduates from both decades ranked the provision of support for oneself and one's family as the most important reason for choosing the pattern of work and study but significantly more students in Decade 2 indicated that payment of educational expenses and

gaining useful professional experiences also were important reasons for their particular patterns.

Table III-6. Patterns of employment and financial support during coursework.

	Decade 1 % of sample	Decade 2 % of sample
Full time student/no employment	18.9	11.8
Full time student/graduate assistantship	4.9	6.6
Full time student with employment other than graduate assistantship	15.3	20.5
Part time student with no employment	3.6	3.7
Part time student with graduate assistantship*	0.0	0.6
Part time student with employment other than graduate assistantship	57.3	56.8
Missing	5	7
	X^2=12.81, df=5, p=.00	

*Technically not permitted by the university

Table III-7. Importance of reasons for pursuing pattern of work and study.

	Decade 1		Decade 2			
	X	Var	X	Var	t	df
Work was necessary to support self and/or family	1.93	2.03	1.93	1.94	-.04	651
Work necessary to pay educational expenses	2.50	2.29	2.21	2.09	2.49*	652
Work provided professional experience useful in career	2.62	2.31	2.30	2.02	2.82*	653

*p < .05

Note: 1=extremely important; 4=not important; 5=not applicable

As shown in Table III-8, the organizational sector in which graduates reported working during their coursework differed for the two decades. During Decade 2, fewer graduates were working in elementary/secondary education and more were working in other diverse agencies. Since many graduates tended to keep their regular jobs, these sectors of employment during study partially reflect the somewhat different employment origins of master's students in Decade 2. More data to support such a premise is given in Table III-9 below.

Table III-8. Organizational sector in which graduates held position during graduate study.

	Decade 1 (in percent)	Decade 2
Elementary/secondary education	67.9	51.1
Higher education	9.4	22.0
Community or service organization	2.4	4.5
Government agency	3.5	6.8
Business or industry	7.8	4.9
Other	8.9	10.6
Missing	155	90

X^2=50.78, df=5, p=.00

Career Patterns Before and After Master's Study

Table III-9 gives the settings in which graduates reported working before the master's degree and at the time of the survey. The distribution patterns were different both before and after the degree. More Decade 2 graduates started from and returned to sectors other then elementary/secondary education, possibly because opportunities in these sectors were not declining as rapidly as those in public schools. Although fewer graduates from Decade 1 (14.7%) did not report employment prior to the degree than for Decade 2 (23.7%), the percentage of graduates who did not report employment after the master's in Decade 2 was lower (8.2%) than for Decade 1 (10.3%). This difference could reflect, of course, the number of women from Decade 1 who have left regular employment to raise families. The specific job titles held before and after master's degree receipt are given in Tables III-10 and III-11.

Table III-9. Settings in which graduates worked before and after master's degree.

	Before Degree		After Degree	
	Decade 1 (in percent)	Decade 2	Decade 1 (in percent)	Decade 2
Elementary/Secondary	84.3	56.0	67.9	46.8
Higher Education	5.9	12.7	9.4	14.8
Community Service Agency	1.0	5.2	2.4	8.0
Government Agency	2.6	8.5	3.5	8.0
Business	2.1	6.8	7.8	10.8
Other	4.1	10.7	8.9	11.7
	X^2=, df=5, p=.00		X^2=37.42, df=5, p=.00	
Missing	67	47	84	29

Table XII-10. Positions held before master's study.

Position	Decade 1 (in percent)	Decade 2
001 President/chancellor of college	0.0	0.0
002 Vice president/provost/dean of college	0.2	0.0
010 Superintendent of schools	0.0	0.0
011 Asst/assoc superintendent of schools	0.0	0.0
022 Executive officer - business/agency	0.2	1.4
003 Director of unit - college	0.0	0.3
004 Asst/assoc adminis of unit - college	0.0	0.0
005 Prof, assoc prof, assist professor	0.7	0.3
012 District supervisor/director school	0.9	0.6
013 Principal of school	0.5	0.6
023 Manager - business or agency	0.7	3.5
029 Research - non-college setting	0.0	0.3
039 Education director - non-education setting	0.2	1.7
020 Middle administrator - college	0.2	1.2
019 Asst to administrative unit head - college	0.2	0.0
006 Faculty rank below assist professor	1.1	4.0
007 Psychologist/counselor/admissions	0.5	0.9
014 Class principal/asst or assoc principal	0.2	0.0
015 Teacher - school	69.3	40.6
016 School consultant or specialist	0.2	1.4
017 Student services - school	0.7	0.6
018 Librarian - school	0.5	0.6
025 Consultant - community agency/business	0.0	0.0
026 Specialist - community agency/business	0.2	1.2
027 Private practitioner/counseling	0.0	0.0
028 Private consultant	0.5	4.6
030 Employee in higher education govt agency	0.0	0.0
008 Graduate or research assistant	0.0	0.6
009 Other higher education professional	0.2	1.2
038 Media in non-school setting	0.0	0.3
040 Health practice - non-school	1.1	4.3
021 Substitute teacher	1.8	5.2
031 Clergy	1.4	0.3
034 Military	0.7	0.3
024 First line worker - non-education	1.8	4.6
032 Secretary	0.5	2.0
033 Student	10.6	7.8
035 Homemaker	1.6	2.3

036 Unemployed	1.8	2.6
041 Retired	0.0	0.0
042 Other non-education	1.4	3.8
043 Intern	0.0	0.3
044 Fellowship	0.0	0.0
045 Volunteer work (education related)	0.0	0.3
046 Hourly worker	0.2	0.6

Table III-11. Positions held after master's study.

Position	Decade 1 (in percent)	Decade 2
001 President/chancellor of college	0.0	0.1
002 Vice president/provost/dean of college	0.2	0.6
010 Superintendent of schools	0.2	0.0
011 Asst/assoc superintendent of schools	0.2	0.0
022 Executive officer - business/agency	1.8	2.6
003 Director of unit - college	0.9	1.4
004 Asst/assoc adminis of unit - college	0.5	0.0
005 Prof, assoc prof, assist professor	2.5	1.7
012 District supervisor/director school	2.9	1.1
013 Principal of school	2.7	0.3
023 Manager - business or agency	4.1	5.7
029 Research - non-college setting	0.0	0.0
039 Education director - non-education setting	0.5	1.7
020 Middle administrator - college	0.5	0.9
019 Asst to administrative unit head - college	0.2	0.3
006 Faculty rank below assist professor	0.9	5.1
007 Psychologist/counselor/admissions	0.7	0.9
014 Class principal/asst or assoc principal	1.2	1.8
015 Teacher - school	38.1	34.8
016 School consultant or specialist	3.2	2.6
017 Student services - school	5.2	1.7
018 Librarian - school	0.7	0.3
025 Consultant - community agency/business	0.9	1.1
026 Specialist - community agency/business	2.0	3.1
027 Private practitioner/counseling	1.1	0.0
028 Private consultant	0.5	5.4
030 Employee in higher education govt agency	1.1	0.9
008 Graduate or research assistant	0.5	1.4
009 Other higher education professional	0.5	1.1
038 Media in non-school setting	0.0	0.6
040 Health practice - non-school	0.7	6.3
021 Substitute teacher	2.0	1.7
031 Clergy	0.9	0.3
034 Military	0.0	0.0
024 First line worker - non-education	1.8	4.8
032 Secretary	0.2	0.3
033 Student	0.5	0.9
035 Homemaker	8.1	2.8

036 Unemployed	4.7	4.6
041 Retired	3.8	0.0
042 Other non-education	2.3	2.3
043 Intern	0.2	0.3
044 Fellowship	0.0	0.0
045 Volunteer work (education related)	0.7	0.0
046 Hourly worker	0.0	0.3

Graduates of the two decades tended to have held their positions prior to the master's degree about the same length of time (Table III-12) but after the degree (Table III-13) there was, as expected, a longer employment tenure in the same position for graduates of Decade 1. Beyond the usual relation between age and employment tenure, however, some part of the difference might be accounted for by the greater number of graduates in Decade 2 who have not been employed in public school positions. Tenured school positions may be less volatile or, alternatively, non-school positions may provide more opportunity for upward promotion to new and different types of work.

Table III-12. Length of time graduates held position before the master's degee.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Decade 1 Nearest Percent Missing=23%	37	25	13	9	5	2	2	1	0	2	1	1	2
Decade 2 Nearest Percent Missing=20%	32	29	13	7	6	3	1	0	1	2	1	1	2

$X^2=7.97$, df=12, p=.79

Table III-13. Length of time current position has been held.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Decade 1 Nearest Percent Missing=20%	15	6	10	4	5	4	4	6	4	5	5	4	27
Decade 2 Nearest Percent Missing=11%	24	19	16	3	9	4	6	4	4	4	2	1	3

x^2=151.45, df=12, p=.00

The occupational level indices before and after the master's degree for respondents of both decades are given in Table III-14. Surprisingly, graduates of Decade 2 appear to have experienced more upward career mobility, even though they have graduated more recently. One explanation is that women graduates of Decade 1 are more frequently homemakers. Upon recalculation without homemakers, retired persons and volunteers, the mean occupational change for Decade 1 is .30, exceeding that of Decade 2 (Mean=.25) but not significantly so. Another explanation, already mentioned is that our index does not fully capture the level of non-public school or non-college education positions which many of these respondents held before the degree. Another possibility is that bachelor's degree recipients in Decade 2, having failed to find employment, tended to return for further study.

Table III-14. Occupational level index before and after master's degree.

	Lowest	Low	Modest	High	Highest
Level Before Degree					
Decade 1 (Missing=12)	17.8	5.2	73.6	2.9	0.5
Decade 2 (Missing=37)	24.2	12.1	55.0	7.2	1.4
		X^2=34.88, df=4, p=.00			
Level After Degree					
Decade 1 (Missing=11)	22.3	4.5	56.8	14.0	2.5
Decade 2 (Missing=22)	16.2	11.4	57.0	12.0	3.4
		X^2=17.20, df=4, p=.00			
Difference in levels					
Decade 1	Mean = .06; Variance = 1.71				
Decade 2	Mean = .24; Variance = 1.23				
	t=-2.13* df=776 p=.03				

Perceptions of Career Impact of Master's Degree

Despite the fact that both the sectors of employment and purposes rated as most important for the master's degree were slightly different for graduates of the two decades, there were no differences in the extent to which they felt their careers had been affected by the degree and only small differences in the patterns of correlations among the ratings of impact. (See Tables III-15 and III-16.) Apparently, length of time since the degree is minimally related to perceived career impact or, alternatively, perceived impact was lower for Decade 1 graduates initially and has changed over time. In the patterns of correlation, however, Decade 2 graduates did perceive a stronger relationship between job security and professional skill and between job security and salary than did Decade 1 graduates.

Table III-15. Perceptions of degree impact on career.

	Decade 1		Decade 2			
	X	Var	X	Var	t	df
Salary	5.45	2.24	5.23	3.01	1.73	586
Status or rank	4.98	1.51	4.91	1.78	0.68	584
Professional Skill	5.94	1.25	5.88	1.71	0.62	582
Professional Knowledge	6.07	1.22	5.99	1.86	0.82	581
Job Security	4.62	1.91	4.61	2.02	0.10	481
Supervisory or Administrative Responsibility	4.77	1.84	4.65	2.11	1.00	576

*p < .05 (Note: 7 individuals in Decade 1 and 18 individuals in Decade 2 had no basis for before and after comparison.) Response scale: 1=considerably less to 7= considerably increased.

Table III-16. Correlations of perceptions of degree impact on career. N=327 Decade 1; (N=242 Decade 2)

Career Impact	Career Impact 1	2	3	4	5	6
1. Salary	--	36 (32)	40 (41)	40 (45)	17 (37)	18 (21)
2. Status or rank		--	41 (53)	36 (48)	33 (40)	55 (60)
3. Professional skill			--	86 (91)	19 (32)	29 (38)
4. Professional knowledge				--	25 (31)	34 (37)
5. Job security					--	26 (31)
6. Supervisory responsibility						

All correlations are significant at $p < .05$.

Additional Educational Activities

As could be expected, graduates of Decade 1, who received their master's degree at an earlier date, have more frequently received additional degrees (Table III-17). The more recent graduates of Decade 2 are somewhat more likely to remain in contact with the School of Education (X^2=17.30, df=1, p=.00). Of the Decade 1 graduates 82.1% reported no contact while 17.9% were in contact less than once a year. For Decade 2, 67.9% reported no contact and 32.1% reported contact less than once a year.

Table III-17. Additional degrees obtained after the masters.

	Decade 1 (in percent)	Decade 2	X_1^2	p
Other B.A.	0.9	0.3	1.16	.28
Other masters	5.5	1.1	10.90	.00
Education doctorate	3.1	0.6	6.48	.01
Other doctorate	1.3	0.0	4.69	.03
Professional degree	3.3	0.6	7.32	.01
Other degree	7.3	4.6	2.29	.13

Part IV

Comparison of Master's Graduates by Current Occupation

Master's degree recipients were divided into three groups on the basis of the occupation they reported at the time of the survey. A group we labeled "no work" (N=149) consisted of those graduates who reported that they were homemakers, unemployed or volunteers in education-related occupations. Women constituted 93.8% of this group. Because of its uniqueness, we eliminated the group from this comparison based on current occupation. The second group, labeled "Noneducation work" (N=399) was comprised of those individuals reporting occupations that clearly seemed not to be in education. The "Education" group (N=1052) was comprised of individuals who were working in educational positions variously located in elementary/secondary education, higher education, government and community agencies or private practice. In all, 1600 individuals could be classified into these three groups. The remaining small group of individuals (N=69) were not assigned to any group either because they did not report their current occupation or because their occupation was ambiguous (fellowship, intern, retired, student, clergy, military) and might or might not be concerned with education.

As shown in Table IV-1, currently employed men and women pursued careers in or out of education in approximately equal proportions.

Table IV-1. Distribution of graduates by sex and current occupation.

	Women N=1053	Men N=372	
	% of sample 73.9	% of sample 26.1	Missing
	(in percent)		
Noneducation work	74.2	25.8	4
Education work	73.8	26.2	22
	X^2=.02, df=1, p=.88		

Comparison of the two occupational groups of graduates by age at receipt of degree revealed no differences beyond those expected by chance (See Table IV-2). There is a trend, however, for those working in education to have received their degrees when slightly older than those working in other fields. Alternative explanations might be that 1) younger recipients found jobs unavailable in education because positions were already occupied by older individuals, 2) persons receiving their degrees at a younger age tend to enter non-education jobs, or 3) education workers delayed pursuing a master's degree longer than others. (Although we have omitted them from the complete analysis, it should be noted that women in the "no work" group received their degrees at a much younger age than those currently employed in either the education or the non-education sectors.)

Table IV-3 compares the current occupations of those graduates who are employed in education or non-education by decade of graduation. Graduates of the most recent years have been more likely to enter non-education work than graduates of the late sixties.

Table IV-2. Age of students at receipt of masters degree.

	Noneducation N=399	Education N=1052
	(in percent)	
Less than 30 years	65.1	59.7
31 to 40 years	22.5	25.7
41 to 50 years	10.4	11.9
51 or more	2.0	2.6
Missing	4	14

X^2=3.50, df=3, p=.32

Table IV-3. Decade of graduation and current occupation.

	Decade 1 N=448	Decade 2 N=1188
	(in percent)	
Noneducation work	18.9	30.5
Education work	81.1	69.5
Missing	7	15

X^2=18.22, df=1, p=.00

Purposes of Masters Study

Graduates who now work outside of education were significantly more likely to indicate that movement into a new professional field was an important purpose of masters study. Since many already held positions in noneducational sectors and continue to do so, it is not clear whether they were hoping to move into more traditional educational work or to gain a firmer footing in non-school settings. Those who now work in education were more likely to express the reasons to be expected of students who intend to stay in a field

in which certification by advanced degree is important and salary may also depend upon graduate credits earned. That is, education workers were more likely to say they studied to apply credits already earned to a degree, to aim for a higher salary in their current job and to meet requirements for an advanced degree in order to maintain their position or certificate (See Table IV-4).

Table IV-4. Purposes of master's study.

	Noneducation		Education			
	X	Var	X	Var	t	df
Improve professional knowledge and skills	1.76	1.19	1.67	0.93	1.56	1425
Enhance opportunities for advancement in position	2.44	2.35	2.41	2.01	0.37	1432
Move into a new professional field	2.90	2.44	3.26	2.52	-3.87*	1433
Apply credits already earned to a degree	4.27	1.26	3.84	1.96	5.45*	1432
Earn a higher salary at my job	3.19	2.16	2.51	2.06	7.94*	1431
An advanced degree was required to maintain my position or certificate	3.94	2.25	3.65	2.39	3.25*	1432
Personal satisfaction	2.03	1.52	2.04	1.38	-0.19	1434

Note: 1=extremely important; 4=not at all important; 5=does not apply.

*$p < .05$

The correlations in Table IV-5 show stronger positive relationships between earning a higher salary, opportunities for advancement in current

position and acquisition of professional skills for those not employed in education. For those in education work a positive and significant relationship emerged between enhancing opportunities for advancement in one's position and movement into a new professional field, while for non-educators this correlation was negative.

Table IV-5. Correlations among reasons for master's study.
N=445 Noneducation; (N=1178 Education)

Reasons	Reasons						
	1	2	3	4	5	6	7
1. Improve professional skills and knowledge	--	38* (29)*	07 (13)*	05 (04)	20* (06)	00 (05)	44* (40)*
2. Enhance opportunities for advancement in position		--	-14 (11)*	08 (07)*	50* (24)*	15* (16)*	26* (18)*
3. Move into a new professional field			--	00 (01)	-08* (-18)*	-12* (-01)	12* (08)*
4. Apply credits already earned toward a degree				--	20* (32)*	16* (16)*	09 (12)*
5. Earn a higher salary at my job					--	15* (24)*	18* (14)*
6. An advanced degree was required to maintain my job.						--	-09 (00)
7. Personal satisfaction							

*p < .05

Study Patterns

Table IV-6, which gives the areas of program specialization, shows that there were significant differences in the program choices of graduates now pursuing noneducation and education work. Such differences are to be expected

given the academic specializations and the nature of the job market. For example, during the period examined, opportunities for graduates of guidance and counseling improved in rehabilitation areas and a sub-program training specialty in that area received external funding. Conversely, the passage of Public Law 94-142 created both study support opportunities and public school jobs for those pursuing a specialization in special education.

Table IV-6. Area of specialization of masters students.

Program	Noneducation (in percent)	Education
Educational Administration	3.8	8.8
Adult Education	6.0	1.8
Curriculum and Instruction	15.1	35.3
Early Childhood Education	2.5	4.0
Education and Community Development	2.5	1.4
Educational Psychology	5.8	5.0
Guidance and Counseling	29.9	15.1
Higher Education	1.5	2.5
Occupational Education	14.6	9.9
Physical Education	0.8	0.9
Social Foundations of Education	5.5	5.0
Special Education	7.5	9.0
Other	4.5	1.3
Missing	1	2
	X^2=124.67, df=12, p=.00	

The patterns of work and study differed significantly for graduates who now pursue careers in and out of education. The distribution of patterns that graduates reported is shown in Table IV-7. Those respondents now working out of education were more likely to be full time students and less likely to maintain some employment while studying part time. It is possible this is due to fellowship or traineeship support available during this period for students

planning various careers outside of traditional education. Another possibility is that these students had not commenced regular careers with the same frequency as those in education or decided to leave their jobs to pursue a new specialty and thus were more flexible in attending the university on a full time basis.

Table IV-7. Patterns of employment and financial support during coursework.

	Noneducation % of sample	Education % of sample
Full time student/no employment	19.4	11.3
Full time student/graduate assistantship	6.8	5.6
Full time student with employment other than graduate assistantship	26.0	18.0
Part time student with no employment	3.3	2.7
Part time student with graduate assistantship*	0.8	0.8
Part time student with employment other than graduate assistantship	43.7	61.6
Missing	3	15
	X^2=40, df=5, p=.00	

*Technically not permitted.

Still one more alternative explanation for the different patterns of work and study is implied in Table IV-8. Although those pursuing careers in and out of education who worked while studying for the master's did not differ in the importance they reported for necessary work to support family, or to pay educational expenses, graduates now working in education were significantly more likely to rate as an important reason the desirability of professional work experience.

Table IV-8. Importance of reasons for pursuing pattern of work and study.

	Ex Imp	Very Imp	Fairly Imp	Slight Imp	Not Imp	Miss-ing
	(in percent)					
Work was necessary to support self and/or family						
Noneducation	60.8	16.2	5.8	4.2	12.9	90
Education	65.0	14.7	7.8	4.1	8.4	145
	X^2=7.30, df=5, p=.12					
Work necessary to pay educational expenses						
Noneducation	42.5	20.5	12.3	6.8	17.9	91
Education	45.9	21.0	21.3	7.8	13.0	146
	X^2=4.70, df=5, p=.32					
Work provided professional experience						
Noneducation	30.5	26.0	14.3	6.2	23.1	91
Education	40.8	24.7	13.1	5.6	15.8	145
	X^2=13.79, df=5, p=.01					

Since many students in both education and noneducation groups did maintain their regular employment while studying part time, the types of organizations in which master's students were employed during study may merely reflect the different occupational backgrounds with which they began their degree program. As shown in Table IV-9, those who now pursue careers in non-education settings were far more likely to do so while they were graduate students as well than were those now working in education.

Table IV-9. Organizational sector in which graduates held position during graduate study.

	Noneducation	Education
	(in percent)	
Elementary/secondary education	61.0	74.7
Higher education	26.6	16.9
Community or service organization	7.7	0.9
Government agency	12.9	1.3
Business or industry	8.9	2.3
Other	12.9	3.8
Missing	128	284

X^2=215.4, df=5, p=.00

Careers Before and After Master's Degree

Tables IV-10, IV-11 and IV-12 give information about the positions held before and after the master's degree. Note that Table IV-10 data regarding positions after the degree and Table IV-12 simply reflect the way the comparison groups were defined.

Graduates were working in different settings before they pursued the master's degree but these differences were amplified after the degree as many individuals formerly working in public schools or higher education found positions in community service, government, business or similar settings. In a sense, the master's degree seems to provide an opportunity for individuals educated primarily for classroom teaching to pursue specializations that allow employment in more diverse settings.

Table IV-10. Settings in which graduates worked before and after masters degree.

	Before Degree		After Degree	
	Noneducation (in percent)	Education	Noneducation (in percent)	Education
Elementary/Secondary education	37.2	79.8	3.0*	78.3
Higher Education	13.4	8.4	1.5*	18.2
Community Service Agency	9.1	2.1	17.0	0.5*
Government Agency	13.4	1.7	20.8	0.5*
Business	11.0	3.7	30.1	0.6*
Other	15.9	4.3	27.6	2.0
Missing	71	126	0	2
	x^2=237.66, df=5, p=.00		Statistical tests not applicable by definition.	

*Small numbers of individuals in these categories represent either mis-classification of current careers by the investigators or inconsistencies by respondents in reporting their occupational sector and job title.

Table IV-11. Positions held before master's study.

Position	Noneducation (in percent)	Education
001 President/chancellor of college	0.0	0.0
002 Vice president/provost/dean of college	0.0	0.0
010 Superintendent of schools	0.0	0.0
011 Asst/assoc superintendent of schools	0.0	0.0
022 Executive officer - business/agency	1.8	0.0
003 Director of unit - college	0.5	0.2
004 Asst/assoc adminis of unit - college	0.0	0.1
005 Prof, assoc prof, assist professor	0.3	0.4
012 District supervisor/director school	1.6	1.2
013 Principal of school	0.8	0.3
023 Manager - business or agency	7.0	0.8
029 Research - non-college setting	0.3	0.1
039 Education director - non-education setting	0.3	0.8
020 Middle administrator - college	1.0	0.9
019 Asst to administrative unit head - college	0.3	0.0
006 Faculty rank below assist professor	1.8	3.0
007 Psychologist/counselor/admissions	1.0	0.4
014 Class principal/asst or assoc principal	0.0	0.1
015 Teacher - school	26.1	65.1
016 School consultant or specialist	0.8	1.0
017 Student services - school	0.0	0.6
018 Librarian - school	0.0	0.7
025 Consultant - community agency/business	0.3	0.0
026 Specialist - community agency/business	1.8	0.4
027 Private practitioner/counseling	0.0	0.0
028 Private consultant	7.0	1.0
030 Employee in higher education govt agency	0.0	0.0
008 Graduate or research assistant	0.5	0.1
009 Other higher education professional	1.8	0.6
038 Media in non-school setting	0.3	0.0
040 Health practice - non-school	8.1	1.9
021 Substitute teacher	2.6	3.1
031 Clergy	0.3	0.1
024 First line worker - non-education	7.8	0.7
032 Secretary	3.4	1.2
033 Student	11.2	7.8
035 Homemaker	2.3	1.4
036 Unemployed	2.1	2.5

041 Retired	0.0	0.0
042 Other non-education	4.2	2.7
043 Intern	0.0	0.0
044 Fellowship	0.0	0.0
045 Volunteer work (education related)	0.3	0.0
046 Hourly worker	2.1	0.0

Table IV-12. Positions held after masters study.

Position	Noneducation (in percent)	Education (in percent)
001 President/chancellor of college		0.1
002 Vice president/provost/dean of college		0.4
010 Superintendent of schools		0.1
011 Asst/assoc superintendent of schools		0.2
022 Executive officer - business/agency	7.5	
003 Director of unit - college		1.7
004 Asst/assoc adminis of unit - college		0.7
005 Prof, assoc prof, assist professor		2.4
012 District supervisor/director school		2.9
013 Principal of school		2.1
023 Manager - business or agency	20.6	
029 Research - non-college setting		0.1
039 Education director - non-education setting		0.9
020 Middle administrator - college		1.5
019 Asst to administrative unit head - college		0.7
006 Faculty rank below assist professor		6.6
007 Psychologist/counselor/admissions		1.6
014 Class principal/asst or assoc principal		1.0
015 Teacher - school		60.8
016 School consultant or specialist		4.1
017 Student services - school		5.3
025 Consultant - community agency/business	3.5	
026 Specialist - community agency/business	8.5	
027 Private practitioner/counseling	2.5	
028 Private consultant	12.5	
030 Employee in higher education govt agency		1.0
008 Graduate or research assistant		1.0
009 Other higher education professional		1.9
038 Media in non-school setting	1.5	
040 Health practice - non-school	1.5	
021 Substitute teacher		2.3
031 Clergy	excluded[a]	
034 Military	excluded	
024 First line worker - non-education	17.0	
032 Secretary	1.8	
033 Student	excluded	
035 Homemaker	excluded	
036 Unemployed	excluded	

041 Retired	excluded
042 Other non-education	8.3
043 Intern	excluded
044 Fellowship	excluded
045 Volunteer work (education related)	excluded
046 Hourly worker	0.5

[a]Titles marked "excluded" were included in the "no work" category not analyzed.

Although graduates from both occupational groups held their jobs before the master's degree about the same length of time (Table IV-13), education workers were far more likely to have held their current jobs for a lengthy period than were noneducation workers (Table IV-14). This effect may be caused by entrance into a new professional role or by more chances for promotion or job redesign in other settings than in traditional public school teaching. These figures are given in rounded percents because there was room for some misinterpretation in the question if an individual never changed jobs after the master's degree. These should be viewed as tentative patterns.

Table IV-13. Length of time graduates held position before the master's degree.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Noneducation Nearest Percent Missing=93	37	26	12	5	7	4	3	1	0	1	1	1	2
Education Nearest Percent Missing=184	33	22	12	8	7	4	3	2	1	2	1	1	3

$X^2=9.71$, df=12, p=.64

Table IV-14. Length of time current position has been held.

Years	1	2	3	4	5	6	7	8	9	10	11	12	13-32
Noneducation Nearest Percent Missing=13	37	19	14	9	8	3	3	3	1	1	1	1	2
Education Nearest Percent Missing=184	17	8	11	6	8	5	4	6	6	6	4	3	15

X^2=189.5, df=12, p=.00

As discussed in previous sections, we calculated an occupational level index for each survey respondent (Table IV-15). Recalling that one of our criteria included the similarity to goals typically sought by education graduates, it is not surprising that the education workers are found in the higher occupational levels. Another possibility to explain the higher occupational levels of education workers is that those who entered a new setting started at a level parallel to or lower than their former roles in education.

Table IV-15. Occupational level index before and after master's degree.

	Lowest	Low	Modest	High	Highest
Level Before Degree					
Noneducation (Missing=17)	33.5	13.6	40.3	10.7	1.8
Education (Missing=22)	16.4	6.4	73.1	3.8	0.4
		X^2=134.5, df=4, p=.00			
Level After Degree					
Noneducation (Missing=27)	21.2	17.7	46.2	13.2	1.6
Education (Missing=74)	4.1	4.1	84.5	7.2	0.2
		X^2=227.19, df=4, p=.00			
Difference in levels					
Noneducation	Mean = .28; Variance = 2.13				
Education	Mean = .42; Variance = 0.77				
	t=-2.16 df=1410 p=.03				

Since homemakers were, by definition, omitted from these comparisons, no further analysis was undertaken.

Perceptions of Career Impact of Master's Degree

There were differences among those graduates working in and out of education on a number of dimensions of perceived career impact. Compared to those not in education, those working in education believed there had been more impact on their careers in the areas of salary, professional skills and knowledge gained but less impact in terms of job status or supervisory responsibility accrued in their jobs. Job security was perceived to have been subject to minimal impact by both groups. (See Table IV-16.)

Table IV-16. Perceptions of degree impact on career.

	Noneducation		Education			
	X	Var	X	Var	t	df
Salary	5.04	2.97	5.55	2.09	4.67*	1063
Status or rank	5.16	1.99	4.87	1.49	3.21*	1060
Professional Skill	5.79	1.59	5.96	1.13	-2.02*	1056
Professional Knowledge	5.90	1.76	6.10	1.10	-2.51*	1056
Job Security	4.65	2.12	4.61	1.91	0.39	1058
Supervisory or Administrative Responsibility	5.00	2.54	4.72	1.69	2.87*	1047

*$p < .05$: 4 of the noneducation group and 18 of the education group reported no basis for before and after comparison.

Note: 1=considerably less; 4=no change; 7=considerably increased.

As shown in Table IV-17, graduates working in noneducation areas perceived stronger relationships between all ratings of impact than did the graduates who pursued work in education.

Table IV-17. Correlations of perceptions of degree impact on career. N=248 Noneducation; (N=818 Education)

	Career Impact					
Career Impact	1	2	3	4	5	6
1. Salary	--	55 (25)	38 (33)	38 (33)	38 (22)	27 (10)
2. Status or rank		--	55 (43)	50 (37)	46 (29)	60 (54)
3. Professional skill			--	87 (85)	35 (23)	39 (33)
4. Professional knowledge				--	32 (24)	40 (33)
5. Job security					--	35 (25)
6. Supervisor responsibility						

All correlations are significant at $p < .05$.

Additional Educational Activities

Very few of the graduates had completed additional degrees after the master's although, as pointed out earlier, the time for many since receiving the master's degree had been short. Additional degree acquisition correlated with length of time since master's degree. No significant differences were found between the two occupational groups with regard to the percentage of additional degrees completed.

Table IV-18. Additional degrees obtained after the masters.

	Noneducation	Education		
	(in percent)		X_1^2	p
Other B.A.	0.8	1.1	0.26	.61
Other masters	3.5	2.3	1.72	.19
Education doctorate	1.0	1.8	1.19	.27
Other doctorate	0.3	0.6	0.61	.43
Professional degree	2.5	1.1	3.62	.06
Other degree	6.4	6.3	0.01	.93

Continued Contact with School of Education

Interestingly, although contact for both groups was low, the education workers were less likely to remain in touch with faculty at the School of Education than the noneducation workers (X^2=4.63, df=1, p=.03). Most noneducation workers (69.9%) had no contact with the School of Education while 30.1% had contact less than once a year. The comparable percentages for education workers were 76.3% and 23.7%.

Summary of Results

The majority of master's degree recipients in education at the University of Michigan over the periods examined were women, were less than 30 years of age and were classroom teachers in elementary/secondary education before they began master's study. Women tended to be slightly older than men when receiving the degree. Sex and age distributions did not differ for graduates of two different decades.

The two most important reasons selected for pursuing a master's degree were to improve professional skills or knowledge and to obtain personal satisfaction. Least important reasons were to apply toward a degree credits

already earned and to maintain the current job or certificate. Slightly more than a third of the graduates viewed movement into a new professional field as an important goal and more than one-half of the graduates hoped that the degree would enhance opportunities for advancement in their current position. Slightly less than half hoped to earn a higher salary in their job as a result of the degree. Men were significantly more interested in advancement opportunities while women tended to emphasize requirements for maintaining their current positions and personal satisfaction as goals of their degree study. Late seventies graduates tended to emphasize importance of improving professional skills and opportunities to advance in their positions as degree goals more than did graduates of the late 1960s. Graduates who now continue careers in education were more likely to state that they desired to apply credits already earned to a degree, to aim for a higher salary in their current job and to need the degree to maintain their position or certification than were graduates now working in non-education positions.

Over half of the graduates specialized in 1) curriculum and instruction, 2) guidance and counseling, and 3) occupational education. The remaining graduates elected other fields of specialization. More often than women, men graduates had studied in educational administration, occupational education and physical education.

About 40% of the graduates devoted full time to their studies, including those who held graduate assistantships and those who held some other position while categorizing themselves as full time students. More students studied full time without any employment during the late 1960s, however, than in more recent years. Additionally, those graduates who currently are not working in non-education positions were more likely to have been full time students than

those who currently work in education. Over 50% of graduates from both periods maintained some form of regular full time employment while studying for the master's degree. The most important reasons given for maintaining employment were family support and payment of educational expenses. Over 50% of the graduates (and a larger proportion of those currently employed in education) felt, as well, that their work provided useful career experience. Women were more likely to be full-time students than men, while men cited more frequently the need to support themselves and their families.

The majority of graduates worked in elementary/secondary education settings both before and after the master's degree. Women were more likely to be employed in public school positions before the degree than were men. Recent graduates tended to be employed in a greater diversity of settings prior to degree study than did graduates of the 1960s. Following receipt of the degree, however, the proportion of graduates in both decades working in higher education, community service, government, business and other settings increased. Most recent graduates were more likely to be in these fields both before and after the degree than graduates of Decade 1.

Following the degree, the distribution of work settings for women more closely approximated that of the men. Less than 1% of the graduates held the highest level executive positions in their respective work settings before the degree and less than 3% after the degree; most graduates held and continued to hold "middle-level" positions. As a group, graduates experienced only modest upward movement in job responsibility and prestige following the degree; men experienced more upward career movement than women and more upward movement was reported by those who graduated later and those who continue working in education. Far more of the graduates now working in education had held their

current positions for a period exceeding ten years than those now working out of education.

When asked to rate the impact of the master's degree on various aspects of their career, graduates viewed the acquisition of professional skills and professional knowledge as somewhat increased. As a group, they perceived only modest changes in job status, salary or administrative responsibility or job security. The graduates of both decades ranked the various impacts of receiving the degree similarly, as did men and women on most items. Women, however, were more likely to feel that professional skills and professional knowledge had increased than were men. The relationship between perceived increases in salary and in supervisory responsibility was strongest for men. Compared to those not now working in education, those working in education believed there had been more impact on their careers in the areas of salary and professional skills and knowledge gained but less impact in terms of job status or supervisory responsibilities accrued.

About three-quarters of the graduates reported either no contact or contact less frequent than once a year with the School of Education after receiving their degree. Men, most recent graduates and graduates now working outside of education were slightly more likely to maintain contact than were women, graduates of the late 1960s or those continuing to work in education. Only about 20% expressed interest in continuing involvement with their alma mater.

THE UNIVERSITY OF MICHIGAN SCHOOL OF EDUCATION
SURVEY OF MASTER'S DEGREE GRADUATES

If you received a doctorate from the University of Michigan School of Education, please check here, fill out your name and address, and return the questionnaire. As a doctoral graduate you may have already received a similar questionnaire.

☐

CURRENT BIOGRAPHICAL DATA

1. Name _____ (1:1-4)

2. Home Address: Street: _____ 1 (1:5)

   City: _____

   State: _____ ZIP: _____ (1:6-10)

3. Current Job Title: _____ (1:11-13)

4. Institution/Organization: _____

5. Business Address: _____

   _____

   _____

6. Type of institution in which employed: (1:14)

   __1. elementary or secondary education
   __2. higher education
   __3. community service organization
   __4. government agency
   __5. business
   __6. other (please specify): _____

   _____

7. Your position is: ____(1) full-time ____(2) part-time (1:15)

8. Number of years you have been in your current position: _____ (1:16-17)

WORK HISTORY RELATED TO MASTER'S DEGREE

A. Position immediately before starting work on your master's degree:

   9. Job Title: _____ (1:18-20)

   10. Institution/Organization: _____

   11. Type of institution in which employed: (1:21)

   __1. elementary or secondary education
   __2. higher education
   __3. community service organization
   __4. government agency
   __5. business
   __6. other (please specify): _____

   _____

   12. Position was: ____(1) full-time ____(2) part-time (1:22)

   13. Number of years in this position before starting master's degree: _____ (1:23-24)

Please return by May 5, 1982 to Dean Joan Stark, School of Education, University of Michigan, Ann Arbor, Michigan 48109.

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B. Position immediately after completing your master's degree:

14. If after completing your master's degree your primary occupation continued to be student, please check here and skip to question 20. ☐ (1:25)

15. Job Title: _____ (1:26-28)

16. Institution/Organization: _____

17. Type of institution in which employed: (1:29)

__1. elementary or secondary education
__2. higher education
__3. community service organization
__4. government agency
__5. business
__6. other (please specify): _____

_____

18. Positions was: ____(1) full-time ____(2) part-time (1:30)

19. Number of years in this position after completing your master's degree: _____ (1:31-32)

INFORMATION ABOUT EARNING THE MASTER'S DEGREE

20. Was your degree: ____(1) M.A. ____(2) M.S. (1:33)

21. Your department or program: (1:34-35)

__A Social Foundations
__B Educational Administration and Supervision
__C Educational Psychology
__D Curriculum and Instruction
__E Occupational Education
__F Physical Education
__G Higher Education
__H Adult and Continuing Education
__J Guidance and Counseling
__M Education and Community Development
__N Special Education
__S Speech and Hearing Sciences
__other (please specify): _____

22. Your age at completion: (1:36)

__1. 30 or under __2. 31-40 __3. 41-50 __4. 51 or over

23. During most of the period in which you were taking course work, were you a student.... (1:37)

__1. full-time with no employment
__2. full-time with Graduate Assistantship
__3. full-time with employment other than a Graduate Assistantship

__4. part-time with no employment
__5. part-time with Graduate Assistantship
__6. part-time with employment other than a Graduate Assistantship

24. Using the scale given, please indicate the importance of each of the reasons listed below in your decision to work either part-time or full-time while studying for the master's degree. *Please skip this question if your answer to question 23 was #1 (full-time with no employment) and proceed to the next question.*

Scale: 1-Extremely important 4-Slightly important
2-Very important 5-Not at all important
3-Fairly important

__1. Work was necessary to support myself and/or my family. (1:38)
__2. Work was necessary to pay my educational expenses. (1:39)
__3. Work provided professional experience useful in my career. (1:40)
__4. Other (please specify): _____ (1:41)

_____

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Position(s) while taking courses for master's degree (include work as a Graduate Research Assistant or Teaching Assistant). If you held more than two positions during this time, list the two most significant:

25. ____No position. Financial support through other courses. *(If you check here, please go to question 36).* (1:42)

26. Job Title: _____ (1:43-45)

27. Institution/Organization: _____

28. Type of institution in which employed: (1:46)

__1. elementary or secondary education
__2. higher education
__3. community service organization
__4. government agency
__5. business
__6. other (please specify): _____

_____

29. Position was: ____(1) full-time ____(2) part-time (1:47)

30. Number of years in this position while working on your master's degree: _____ (1:48-49)

31. Job Title: _____ (1:50-52)

32. Institution/Organization: _____

33. Type of institution in which employed: (1:53)

__1. elementary or secondary education
__2. higher education
__3. community service organization
__4. government agency
__5. business
__6. other (please specify): _____

_____

34. Position was: ____(1) full-time ____(2) part-time (1:54)

35. Number of years in this position while working on your master's degree: _____ (1:55-56)

36. Using the scale given, please indicate the importance of each of the reasons listed below in your decision to enter the master's program.

Scale:	1-Extremely important	4-Not at all important
	2-Very important	5-Does not apply
	3-Somewhat important	

__1. To improve professional skills and knowledge. (1:57)
__2. To enhance opportunities for advancement in my position. (1:58)
__3. To move into a new professional field. (1:59)
__4. To apply credits already earned to a degree. (1:60)
__5. To earn a higher salary at my job. (1:61)
__6. Because an advanced degree was required to maintain my position or certificate. (1:62)
__7. For personal satisfaction. (1:63)
__8. Other (please specify): _____ (1:64)

_____

IMPACT OF DEGREE ON CAREER

Please answer this question only if you held a full-time job both before starting the master's degree and after completing it. If you did not hold a full-time job both before and after completing the degree, please check here and skip to question 43. ▱ (1:65)

Please compare your job before the master's degree with your first full-time job after completing the degree. Using the scale provided, indicate how, if at all, each of the items below changed.

	CONSIDERABLY LESS	SOMEWHAT LESS	A LITTLE LESS	NO CHANGE	A LITTLE INCREASED	SOMEWHAT INCREASED	CONSIDERABLY INCREASED	
37. Salary	—	—	—	—	—	—	—	(1:66)
38. Status or rank	—	—	—	—	—	—	—	(1:67)
39. Professional skills	—	—	—	—	—	—	—	(1:68)
40. Professional knowledge	—	—	—	—	—	—	—	(1:69)
41. Job security	—	—	—	—	—	—	—	(1:70)
42. Administrative or Supervisory Responsibility	—	—	—	—	—	—	—	(1:71)

43. Please make any other comments you would like concerning the impact of the master's degree on your professional life.

ACTIVITIES SINCE EARNING THE MASTER'S DEGREE

44. Since completing your master's degree at the School of Education, have you earned any other degree(s)? If you have, please check all that apply to your situation.

__1. B.A. in another field (please specify): _____ (1:72)
_____

__2. M.A. or M.S. in another field (please specify): _____ (1:73)
_____

__3. Ph.D. or Ed.D. in Education. (1:74)

__4. Doctorate in another field (please specify): _____ (1:75)
_____

__5. Professional Degree (please specify, i.e., J.D., M.D.): _____ (1:76)
_____

__6. Other (please specify): _____ (1:77)
_____

45. Please list any significant professional activities in which you have been involved and any professional honors you have received since earning your master's degree. (For example, organizations and meetings, papers and presentations, prizes and awards, publications.) If you prefer, please attach your current vita.

ACTIVITIES RELATED TO THE SCHOOL OF EDUCATION

46. We are interested in the extent of your contact or communication with faculty of the School of Education since completion of your master's degree. (1:78)

__1. No contact.
__2. Less than once a year.
__3. Once or twice a year.
__4. Three to six times a year.
__5. Seven or more times.

(2:1-4)
2 (2:5)

47. If you are willing, please indicate the name of the faculty member with whom you are most in contact: _____ (2:6-8)

In the first column below, please indicate those activities related to the School of Education (not the University at large) in which you have been involved since completing your master's degree. In the second column, please check any additional areas in which you are willing to be involved.

School of Education Related Activities	Have been involved	Willingness to be involved	
Taking additional course work			(2:9-10)
Teaching courses or workshops			(2:11-12)
Recruiting graduate students			(2:13-14)
Placement of graduates			(2:15-16)
Alumni Club activities			(2:17-18)
Attending conferences/seminars			(2:19-20)
Other (please specify)			(2:21-22)

48. Although our purpose is primarily to evaluate the impact of the master's degree on your professional life, we are also interested in your ideas about the School. Please reflect on your experiences as a graduate student at The University of Michigan and on your professional life since earning your master's degree. What suggestions might you make to strengthen the program of the School? (For example, changes in curriculum, counseling, student services, your specific program of study?) *(Please use reverse side.)* (2:23-24)